

US EPA RECORDS CENTER REGION 5



466414

Monthly Oversight Report 66  
44728 AES [46526 RAC]  
ACS NPL Site  
Griffith, Indiana  
June 3, 2006 – June 30, 2006



# BLACK & VEATCH

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Black & Veatch Special Projects Corp.

USEPA/AES  
American Chemical Service, Inc. RAO (0057-ROBE-05J7)

BVSPC Project 44728  
BVSPC File C.3  
July 17, 2006

Mr. Kevin Adler  
U.S. Environmental Protection Agency  
77 W. Jackson Boulevard (SR-6J)  
Chicago, Illinois 60604-3590

Subject: Monthly Oversight Summary Report  
No. 66 for June 2006


Dear Mr. Adler:

Enclosed is the Monthly Oversight Summary Report No. 66 for June 2006 for the American Chemical Service, Inc. Superfund Site in Griffith, Indiana.

If you have any questions, please call (312-683-7856) or email ([campbelllm@bv.com](mailto:campbelllm@bv.com)).

Sincerely,

BLACK & VEATCH Special Projects Corp.

  
Larry M. Campbell, P.E.  
Site Manager

Enclosure

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**Monthly Oversight Summary Report No. 66**  
**ACS Superfund Site**  
**TO 057, 44728.238 (AES) [WA57, 46526.238 (RAC)]**

**Reporting Period:** Month of June (June 3 through June 30, 2006)

**BVSPC O/S Dates:** June 19 & 20, 2006 (Mr. Gailey) and June 29, 2006 (Mr. Campbell)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	3	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Austgen	1	General Contractor
Ryan	1	General Contractor
	2	Floor Coating Contractor

### **Construction Activities**

#### **Major Activities:**

- Montgomery Watson Harza continued operating the groundwater treatment plant, the in-situ soil vapor extraction systems, and the air sparge systems.
- Montgomery Watson Harza relocated the granular activated carbon tanks to provide operating space for other activities in the groundwater treatment plant.
- Montgomery Watson Harza replaced the existing 30 HP piston air compressor with a new 40 HP rotary screw air compressor.
- Montgomery Watson Harza recoated a portion of the floor in the groundwater treatment plant while the granular activated carbon tanks were relocated.
- NIPSCO removed, repaired, and replaced leaking transformers at the groundwater treatment plant.
- Montgomery Watson Harza pumped product from well SVE-53.

#### **Activities Performed:**

- Observed MWH continue to operate the groundwater treatment plant (GWTP) at a flow-demand rate of 22 to 40 gpm, treating 1,008,017 gallons during 732 of the 840 hours (87%) in the June period (May 26–June 30). MWH reported that groundwater was pumped to the plant from all trench and well sources.
- MWH reported that the GWTP was not operational for 2.5 days during the air compressor and transformer replacements and for 2 days when the GWTP floor was recoated, as described below. The GWTP was not inoperable because of problems with the GWTP system.

- Observed on June 19, MWH drain the two granular activated carbon (GAC) tanks, disconnect the hoses, and relocate the GAC tanks from in front of the doorway to the air compressor room to a temporary location in the center of the GWTP building.
- Observed on June 19, Ryan, Austgen, and MWH disconnect and remove the old 30 HP piston air compressor from the compressor room and replace it with a new 40 HP rotary screw air compressor.
- Observed on June 20, Ryan complete installation of electrical, mechanical, and piping elements for the new air compressor.
- Observed on June 20, Northern Indiana Public Service Company (NIPSCO) disconnect electrical power to the GWTP, and remove, repair and reinstall a leaking electrical transformer on the pole near the GWTP building. MWH reported that electrical power was restored later in the afternoon of June 20.
- MWH reported that it measured water levels in all monitoring locations on June 22 as part of the monthly monitoring plan.
- MWH reported that a portion of the GWTP floor in front of the laboratory, tool room, and air compressor room was recoated on June 27 and 28, while the GAC tanks were temporarily located in the center of the GWTP.
- Observed MWH continue to operate the Onsite Containment Area (ONCA) Still Bottoms Pond Area (SBPA) and Off-Site Containment Area (OFCA) in-situ soil vapor extraction (ISVE) systems, processing vapors through thermal oxidizer units 1 and 2 (thermox 1 and 2).
- MWH reported that it conducted the monthly compliance sampling of thermox 1 and 2 on June 22.
- MWH reported that thermox 1 operated for 25 of the 35 days (71%) in the June period, processing 1,000 cfm of vapors from the ONCA SBPA ISVE system, collecting vapors from the same 29 (of the total 46) ISVE wells that have been used during previous reporting periods.
- MWH reported that thermox 2 operated for 29 of the 35 days (83%) in the June period, processing 2,000 cfm of vapors collected from all 42 OFCA ISVE wells and aeration tank T-102.
- MWH reported that both ISVE systems were not operational for 4.5 days because of air compressor and transformer replacement and GWTP floor recoating (same as the GWTP). The SBPA ISVE system and thermox 1 were down for an additional 5.5 days because of problems with the burner and air regulator valve on the combustion blower. The OFCA ISVE system and thermox 2 were down for an additional 1.5 days because of a malfunctioning breaker.
- MWH reported that it pumped 50 gallons of free product from ISVE well SVE-53 in the SBPA on June 23. Product was collected in a drum at the surface and transported to the GWTP and transferred to oil holding tank T-6.
- MWH reported that in late May and early June, air was being injected into the SBPA through Group 1 wells (SVE-50, -54, -73, -79, and -81), each flowing at about 20 cfm. MWH reported that air injection was switched to Group 2 wells (SVE-49, -51, -65, -71, and -82) on June 22. MWH reported that air will be injected using this Group 2 set of wells through late July.

- Completed monthly oversight report (with field notes and photographs) for the May reporting period. Submitted Monthly Oversight Summary Report No. 65 to EPA on June 9.
- Site Manager provided periodic reports of field activities to the EPA TOPO via telephone and E-mail.
- No operation and maintenance (O&M) meetings were held during the reporting period.

**Topics of Concern:** None

**Concern Resolution:** None

**Upcoming Activities:**

- MWH to continue operating the GWTP and the OFCA and ONCA SBPA ISVE and air sparge systems.
- MWH to continue operating Group 2 air injection wells in the SBPA.
- MWH to monitor odors in the ACS break room.
- MWH to continue pumping product from selected ONCA SBPA dual phase extraction wells.
- MWH to conduct Lower Aquifer Phase 3 Investigation, including installation of additional long-term groundwater monitoring network wells, installation of pumps in existing lower aquifer wells in the area of MW53, and burial of conveyance piping and electrical and control conduit from the area of MW53 to the GWTP.
- MWH will continue construction coordination meetings at the site when field activities warrant such meetings.
- MWH will continue monthly O&M meetings to report on operation of active treatment systems.

Signature: Larry Campbell

Date: July 17, 2006

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Remedial Progress Report	June-06	Report Date: 7/7/2006																																												
<b>GWTP &amp; Dewatering</b>																																														
<p>The GWTP was operational for 732 hours out of 840 (87%) from May 26 to June 30</p> <p>Total Gallons treated = 1,008,017 gallons since 5/26/06 (35 days)</p>		<p><u>Tables, Graphs &amp; Figures</u></p> <p>Table - Effluent Summary</p> <p>Graphs - Off-Site Dewatering</p> <p>Graphs - SBPA Dewatering</p>																																												
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**Table**  
**Summary of Effluent Analytical Results**  
**Groundwater Treatment System**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Event Date	Month 107 4/10/2006	Month 108 5/4/2006	Month 109 6/1/2006	Effluent Limits	Lab Reporting Limits
pH	7.87	7.53	7.47 /J	6-9	none
TSS	0.9 B	NS	NS	30	10
BOD		NS	NS	30	2
Arsenic	20.6	NS	NS	50	3.4
Beryllium	0.66 B/UB	NS	NS	NE	0.2
Cadmium	ND	NS	NS	4.1	0.3
Manganese	2.6 B/B	NS	NS	NE	10
Mercury	ND	NS	NS	0.02 (w/DL = 0.64)	0.64
Selenium	ND	NS	NS	8.2	4.3
Thallium	ND	NS	NS	NE	5.7
Zinc	ND	NS	NS	411	1.2
Benzene	0.50 U/	0.50 U/	0.50 U/	5	0.5
Acetone	2.5 U/UJ	2.5 U/	2.5 U/UJ	6,800	3
2-Butanone	2.5 U/UJ	2.5 U/	2.5 U/	210	3
Chloromethane	0.50 U/	0.50 U/	0.50 U/UJ	NE	0.5
1,4-Dichlorobenzene	0.50 U/	0.50 U/	0.50 U/	NE	0.5
1,1-Dichloroethane	0.50 U/	0.50 U/	0.50 U/	NE	0.5
cis-1,2-Dichloroethene	0.50 U/	0.50 U/	0.50 U/	70	0.5
Ethylbenzene	0.50 U/	0.50 U/	0.50 U/	34	0.5
Methylene chloride	1.7	0.50 U/	0.45 J/	5	0.6
Tetrachloroethene	0.50 U/	0.50 U/	0.50 U/UJ	5	0.5
Trichloroethene	0.50 U/	0.50 U/	0.50 U/	5	0.5
Vinyl chloride	0.50 U/	0.50 U/	0.50 U/	2	0.5
4-Methyl-2-pentanone	2.5 U/UJ	2.5 U/	2.5 U/	15	3
bis (2-Chloroethyl) ether	ND	NS	NS	9.6	9.6
bis(2-Ethylhexyl) - phthalate	ND	NS	NS	6	6
4 - Methylphenol	ND	NS	NS	34	10
Isophorone	ND	NS	NS	50	10
Pentachlorophenol	ND	NS	NS	1	1
PCB/Aroclor-1016	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1221	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.92*
PCB/Aroclor-1232	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1242	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1248	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1254	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1260	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5

**Notes:**

Bolded result indicates a exceedence of the discharge limit  
pH data is expressed in S.U.  
Metals, VOC, SVOC and PCB data is expressed in ug/L  
ND = Not detected  
NS = This analyte was not sampled or analyzed for  
NE = No effluent limit established.  
DL = Detection limit  
\* = Approved SW-846 method is incapable of achieving effluent limit.

**DRAFT VERSION**

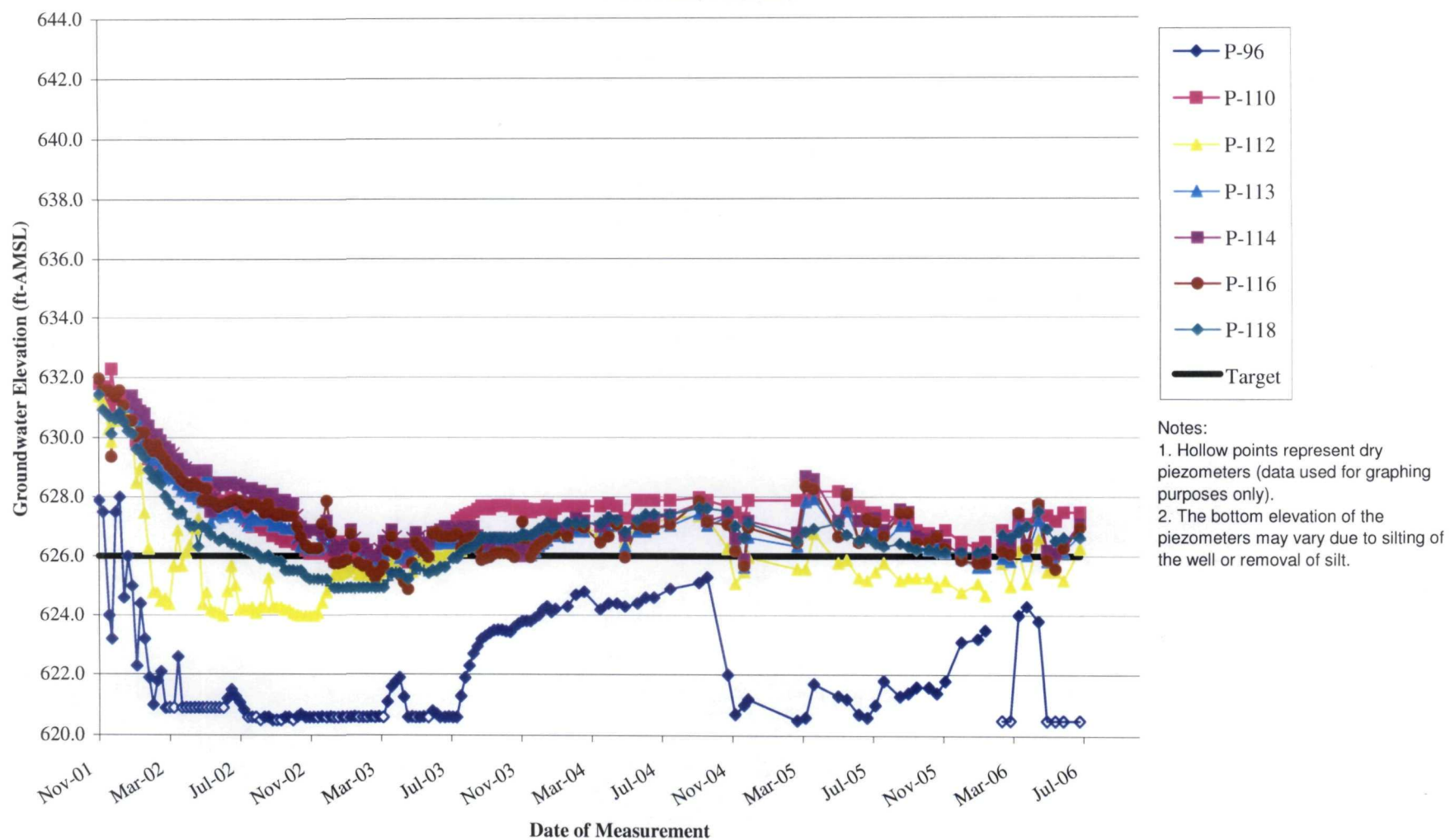
**For Informational Purposes Only**

Not all data presented here has been validated.  
Notes and suffix definitions have not been updated.

**Suffix Definitions:**

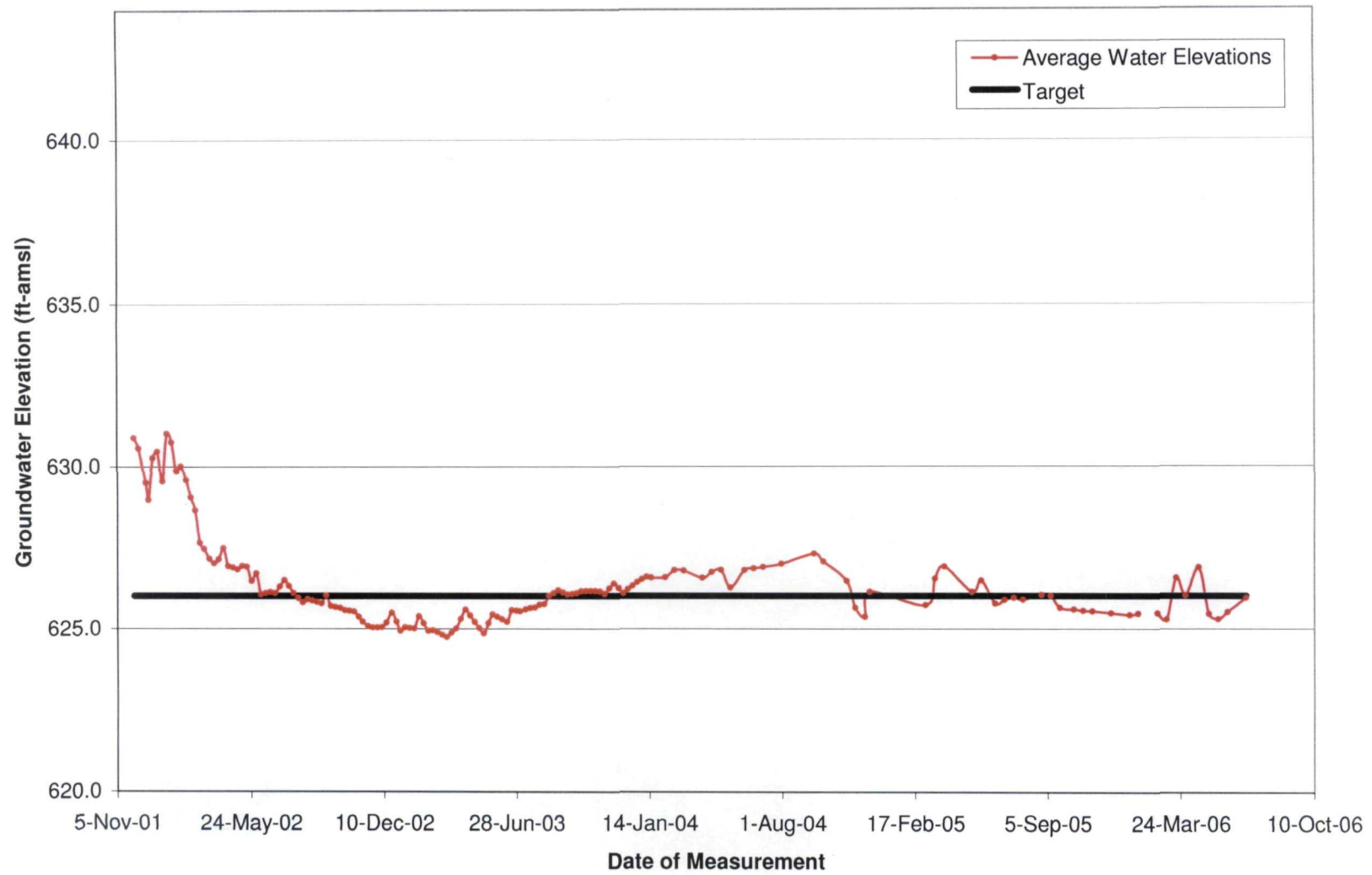
/J = Data qualifier added by laboratory  
/\_ = Data qualifier added by data validator  
J = Result is estimated  
B = Compound is also detected in the blank  
UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value  
JB = Result is detected below the reporting limit and is an estimated concentration.  
The compound is also detected in the method blank resulting in a potential high bias  
UB = Compound or analyte is not detected at or above the indicated concentration due to blank contamination  
UBJ = Analyte is not detected at or above the indicated concentration due to blank contamination, however the calibration was out of range. Therefore the concentration is estimated.

**Figure 3**  
**Off-Site Water Level Status - Piezometers**  
**Groundwater Monitoring**  
**ACS NPL Site**  
**Griffith, Indiana**

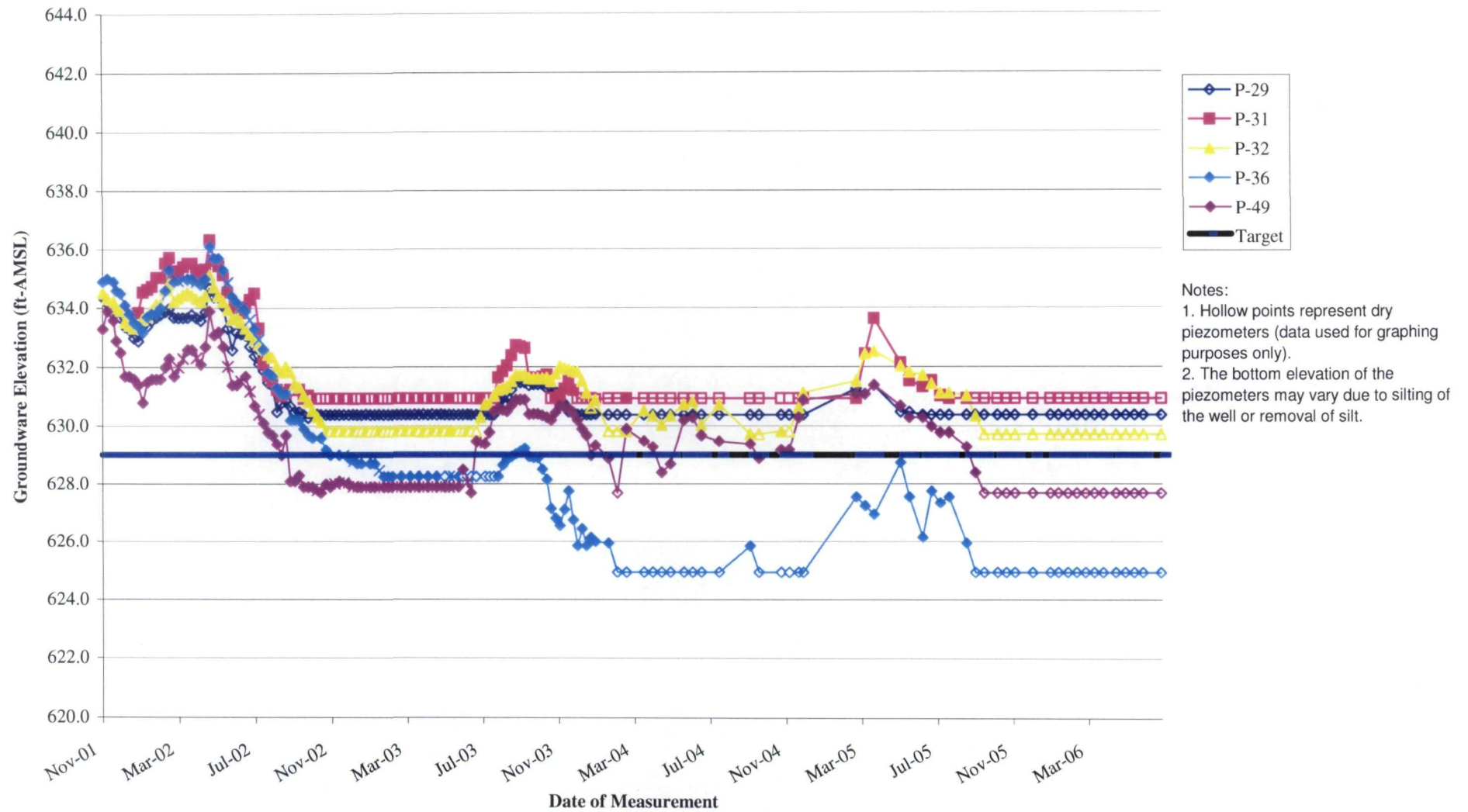




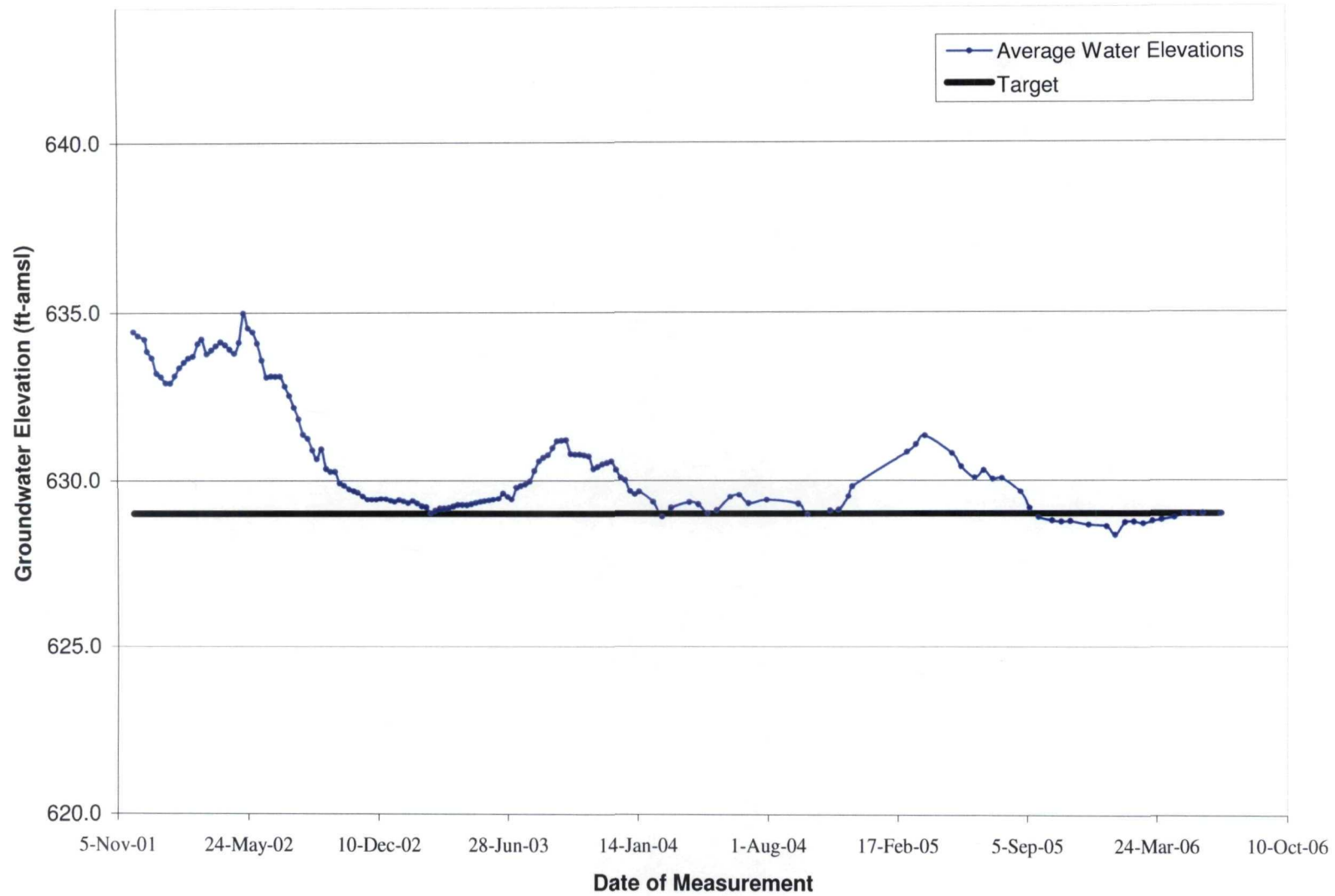
### Off-Site Average Elevations



**Figure 1**  
**SBPA Water Level Status**  
**ACS NPL Site**  
**Griffith, Indiana**



### On-Site Average Water Elevations



**Table 3**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-14 (VOCs) - May 2006**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/18/2006			
		SBPA ISVE		Off-Site ISVE	
1,1,1-Trichloroethane	ppbv	17,000		24,000	
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U
1,1,2-Trichloroethane	ppbv	ND	U	ND	U
1,1-Dichloroethane	ppbv	2,100		3,300	
1,1-Dichloroethene	ppbv	120	J/J	250	J/J
1,2-Dichloroethane	ppbv	290		630	
1,2-Dichloropropane	ppbv	270		260	J/J
2-Butanone (Methyl Ethyl Ketone)	ppbv	570		9,800	
2-Hexanone	ppbv	ND	U		UJ
4-Methyl-2-pentanone	ppbv	720		3,700	J/J
Acetone	ppbv	420	J/J	19,000	
Benzene	ppbv	3,400		15,000	
Bromodichloromethane	ppbv	ND	U	ND	U
Bromoform	ppbv	ND	U	ND	U
Bromomethane	ppbv	ND	U	ND	U
Carbon Disulfide	ppbv	ND	U	ND	U
Carbon Tetrachloride	ppbv	ND	U	ND	U
Chlorobenzene	ppbv	ND	U	ND	U
Chloroethane	ppbv	210		ND	U
Chloroform	ppbv	4,600		1,600	
Chloromethane	ppbv	ND	U	ND	U
cis-1,2-Dichloroethene	ppbv	12,000		2,300	
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U/R
Dibromochloromethane	ppbv	ND	U	ND	U
Ethyl Benzene	ppbv	6,100		15,000	
m,p-Xylene	ppbv	33,000		68,000	
Methylene Chloride	ppbv	3,600		23,000	
o-Xylene	ppbv	17,000		28,000	
Styrene	ppbv	ND	U	ND	U
Tetrachloroethene	ppbv	28,000		25,000	
Toluene	ppbv	42,000		92,000	
trans-1,2-Dichloroethene	ppbv	ND	U	ND	U
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U
Trichloroethene	ppbv	15,000		17,000	
Vinyl Chloride	ppbv	1,300		230	J/J
<b>Total</b>	<b>ppbv</b>	<b>187,700</b>		<b>348,070</b>	
<b>Total</b>	<b>lb/hr</b>	<b>5.253</b>		<b>7.605</b>	

**Notes:**

NC - Not calculated

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

VOCs in lb/hr calculated based on 5/18/06 flow rate readings by Microbac: Offsite: 1812 scfm, 70 F;

On-site: 1566 scfm, 90 F.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

/ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 6**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - May 2006**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/18/2006			
		SBPA ISVE		Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U	1.2	
1,2-Dichlorobenzene	µg	28		37	
1,3-Dichlorobenzene	µg	2.8		1.3	
1,4-Dichlorobenzene	µg	6.6		4.4	
2,4,5-Trichlorophenol	µg	ND	U	ND	U
2,4,6-Trichlorophenol	µg	ND	U	ND	U
2,4-Dichlorophenol	µg	ND	U	ND	U
2,4-Dimethylphenol	µg	ND	U	ND	U
2,4-Dinitrophenol	µg	ND	U	ND	U
2,4-Dinitrotoluene	µg	ND	U	ND	U
2,6-Dinitrotoluene	µg	ND	U	ND	U
2-Chloronaphthalene	µg	ND	U	ND	U
2-Chlorophenol	µg	ND	U	ND	U
2-Methylnaphthalene	µg	7.1		7.8	
2-Methylphenol (o-Cresol)	µg	ND	U	ND	U
2-Nitroaniline	µg	ND	U	ND	U
2-Nitrophenol	µg	ND	U	ND	U
3,3'-Dichlorobenzidine	µg	ND	U	ND	U
3-Nitroaniline	µg	ND	U	ND	U
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U
4-Bromophenyl-phenyl Ether	µg	ND	U	ND	U
4-Chloro-3-methylphenol	µg	ND	U	ND	U
4-Chloroaniline	µg	ND	U	ND	U
4-Chlorophenyl-phenyl Ether	µg	ND	U	ND	U
4-Methylphenol/3-Methylphenol	µg	ND	U	ND	U
4-Nitroaniline	µg	ND	U	ND	U
4-Nitrophenol	µg	ND	U	ND	U
Acenaphthene	µg	ND	U	ND	U
Acenaphthylene	µg	ND	U	ND	U
Anthracene	µg	ND	U	ND	U
Benzo(a)anthracene	µg	ND	U	ND	U
Benzo(a)pyrene	µg	ND	U	ND	U
Benzo(b)fluoranthene	µg	ND	U	ND	U
Benzo(g,h,i)perylene	µg	ND	U	ND	U
Benzo(k)fluoranthene	µg	ND	U	ND	U
bis(2-Chloroethoxy) Methane	µg	ND	U	ND	U
bis(2-Chloroethyl) Ether	µg	ND	U	ND	U
bis(2-Ethylhexyl)phthalate	µg	7		9.3	
Butylbenzylphthalate	µg	ND	U	ND	U
Chrysene	µg	ND	U	ND	U
Dibenz(a,h)anthracene	µg	ND	U	ND	U
Dibenzofuran	µg	ND	U	ND	U
Diethylphthalate	µg	0.62	J/J	1.4	J/J
Dimethylphthalate	µg	ND	U	ND	U
di-n-Butylphthalate	µg	ND	U	ND	U
Di-n-Octylphthalate	µg	ND	U	ND	U
Fluoranthene	µg	ND	U	ND	U
Fluorene	µg	ND	U	ND	U
Hexachlorobenzene	µg	ND	U	ND	U
Hexachlorobutadiene	µg	5		3.1	
Hexachlorocyclopentadiene	µg	ND	U	2.6	J/J
Hexachloroethane	µg	ND	U	ND	U
Indeno(1,2,3-c,d)pyrene	µg	ND	U	ND	U
Isophorone	µg	2.5		20	
Naphthalene	µg	11		36	
Nitrobenzene	µg	ND	U	ND	U
N-Nitroso-di-n-propylamine	µg	ND	U	ND	U
N-Nitrosodiphenylamine	µg	ND	U	ND	U
Pentachlorophenol	µg	ND	U	ND	U
Phenanthrene	µg	ND	U	ND	U
Phenol	µg	ND	U	ND	U
Pyrene	µg	ND	U	ND	U
<b>Total</b>	µg	<b>70.62</b>		<b>124.10</b>	

**Notes:**

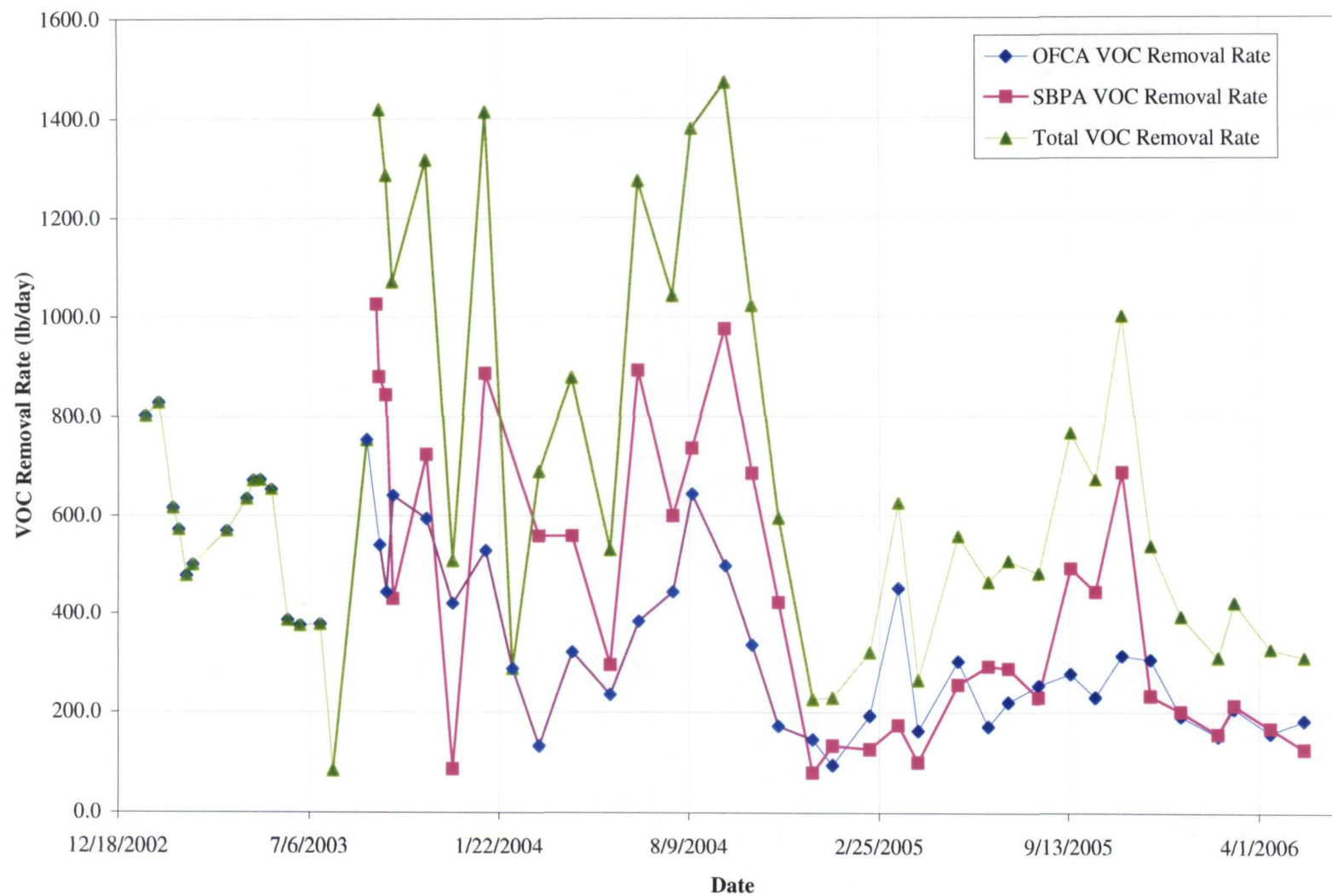
µg - Microgram  
NC - Not calculated  
ND - Non-detect

**Qualifiers:**

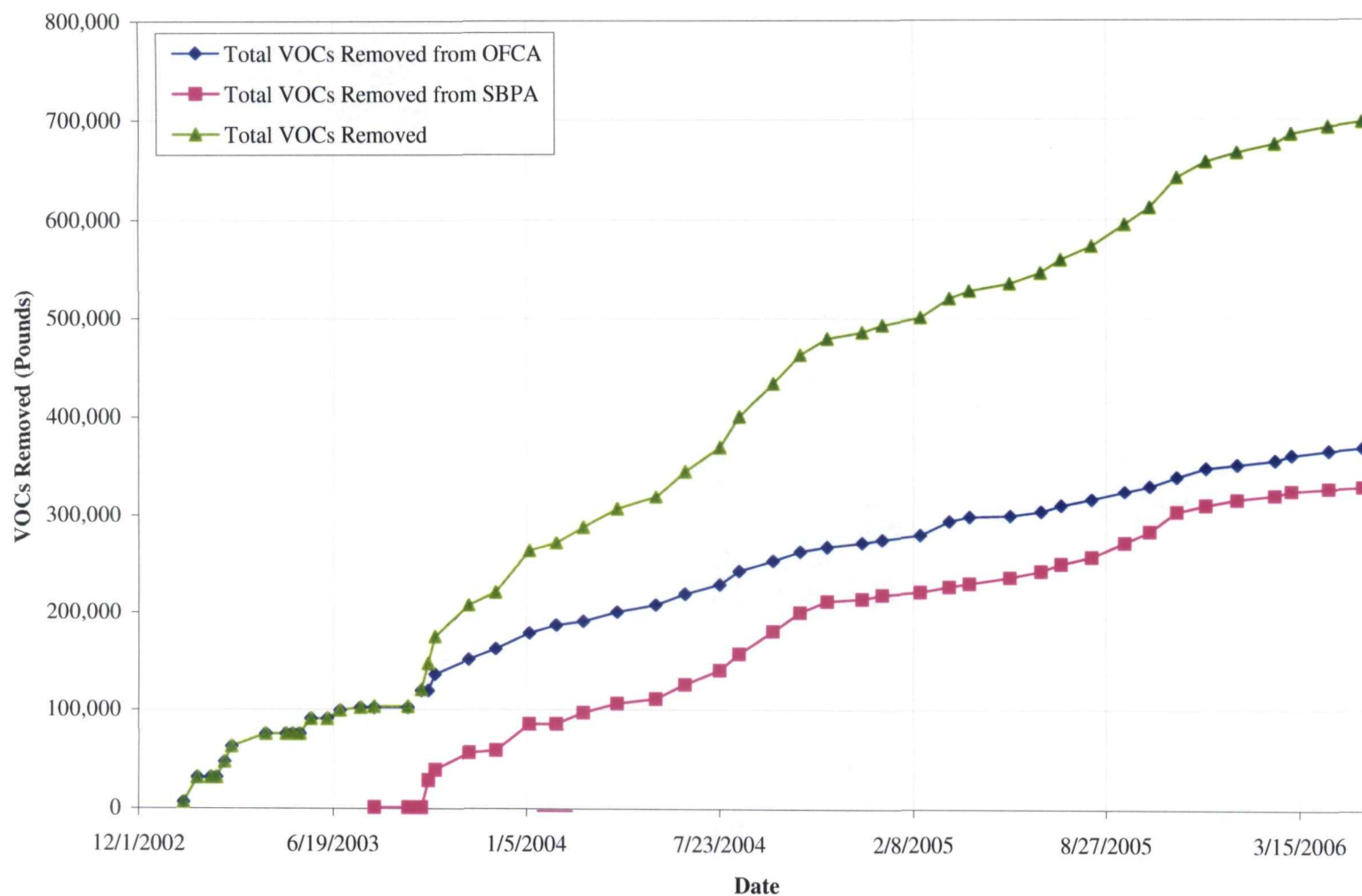
J - Result is estimated  
U - below reported quantitation limit  
/- - Laboratory data qualifier  
/\_ - Data validation qualifier



# VOC Removal Rate American Chemical Services NPL Site, Griffith, IN



**Total VOCs Removed**  
**American Chemical Services NPL Site, Griffith, IN**



*Mike Linker*

01/14/06

9:00 ARRIVED ONSITE @ ACS, Weather: Temp  
73°F CLEAR AND SUNNY.

TODAY'S ACTIVITIES

- INSTALLATION OF A NEW COMPRESSOR -

Present ToD

Lee ORDS

MWLT

Terry Fritze

Ryan

Tim Kirkland

Austgen

9:15 Photo 1 Role 88, Facing West  
INSIDE The GWTP of Terry Fritze  
Preparing the New Compressor for  
Installation.

9:20 Photo 2 Role 88, Facing East INSIDE  
The GWTP of ME24 Compressor being  
Charged out, this

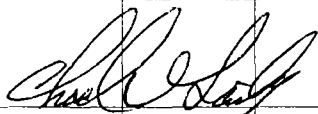
The old pump is a piston Pump made  
by Quincy Model ORDS15.  
there are two Pumps being Replaced  
by one Screw Pump made by  
GARDNER DENVER INC -  
Model # EDE99M Full Load

Operating Pressure 100 psig.

Input Volts 460 Hz 60 phase 3

9:25 MWLT is Drawing the New  
Carbon Tank for mobility and

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06/20/06

Access to the Compressor Room  
with a Yale Fork Truck maximum  
Capacity is 3550 lbs w/ max  
height of 189 inches w/ 24 inch  
spread for lifts.

\* Note The Plant was Shut Down  
This morning. Plans are to have it  
up and Running tomorrow.

10:35 Picture 3 Pole 88 Facing SE  
INSIDE GWTP of Lee CROSS  
Setting up to remove old Compressor.

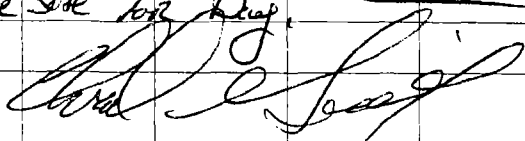
11:12 Picture 4 Pole 88 Facing East  
INSIDE GWTP of MWH hook up  
the Second Compressor Pump. for  
Removal.

11:30 Picture 5 Pole 88 Facing East  
INSIDE GWTP of MWH Removing  
the Air Compressor Tank.

12:33 Picture 6 Pole 88 Facing East  
INSIDE GWTP of MWH Placing the  
New Compressor.

1:35:55 MWH is preparing to hook up piping &  
Electrical to the Compressor.

14:15 Leave Site for Day.



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06/20/06

7:00 ARRIVE ON SITE @ ACS, GWTP; Weather  
Temp 46°F Clear and Sunny.

TODAY'S Activities

- Continue working on the installation  
of the Compressor.
- Service possible replacement of  
the transformer by NIPSCO.

Present Today.

Lee CROSS	MWH
Mike Bristly	Austgen
Terry Frost	Rycen

Mike Bristly is the Electrician hooking  
up the New Compressor while Terry  
is hooking up the mechanical.

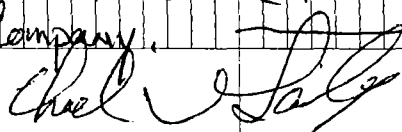
8:30 NIPSCO Arrived on site.

NIPSCO cut Boxer approximately @  
9:00.

9:03 Picture 7 Pole 88 Facing SE  
@ GWTP of NIPSCO working  
on the Transformer.

Nipsoe has a four person crew w/  
three vehicles two boom Trucks  
and one supply truck.

Northern Indiana Public Service  
Company.



(154)

*Chad [Signature]* noted 06

09:25 NIPSCO is Replacing the Bushings in the Transformers

Picture 8 Roll 88 Facing East

@ GWTP of NIPSCO Replacing Bushings

11:12 Leave Site. NipSCO is Cleaning the lid to the Transformer.

and replacing the Basket. Lee w/ Terry & Mike's ASSISTANCE are cleaning up the Compression AREA/Room.

14:02 Dropping off Car and Back to office

*[Signature]*  
Jul 20/06

29 JUN 06

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0900 Arrive Onsite - Clear, Calm  
Warm 78°F

~~0910/06~~

Personal On Site

Lee Orosz MWD

Tim Kirkland Austin

Larry Campbell BUSAC

0910 Disc. w/ Lee.

He was reconnecting the hoses to the temporarily relocated GAC Tanks. Yesterday, the floor under new GAC tanks forward to the other was rescaled to cover that area not previously coated under old GAC Tanks.

Will need to stay off of coating for several days for good cure.

Lee reported that GWTP and both ThermoX units were working ok.

MWD is preparing to drill wells for off site (North) lower Aquifer

Monitoring Wells later in next month.

10:30 Left site for day

Jim Campbell





Site: American Chemical Service, Inc.  
Proj. #: 44728 AES [46526 RAC]  
Roll: 88 Photo #1  
Date: 6-19-06 Time: 0915  
Photographer: Chad Gailey  
Description: Photo facing west inside the treatment plant showing Terry Frigtz of Ryan preparing the new compressor for installation.



Site: American Chemical Service, Inc.  
Proj. #: 44728 AES [46526 RAC]  
Roll: 88 Photo #2  
Date: 6-19-06 Time: 0920  
Photographer: Chad Gailey  
Description: Photo facing east looking into compressor room showing Quincy Model ORD S15 being prepared for removal.

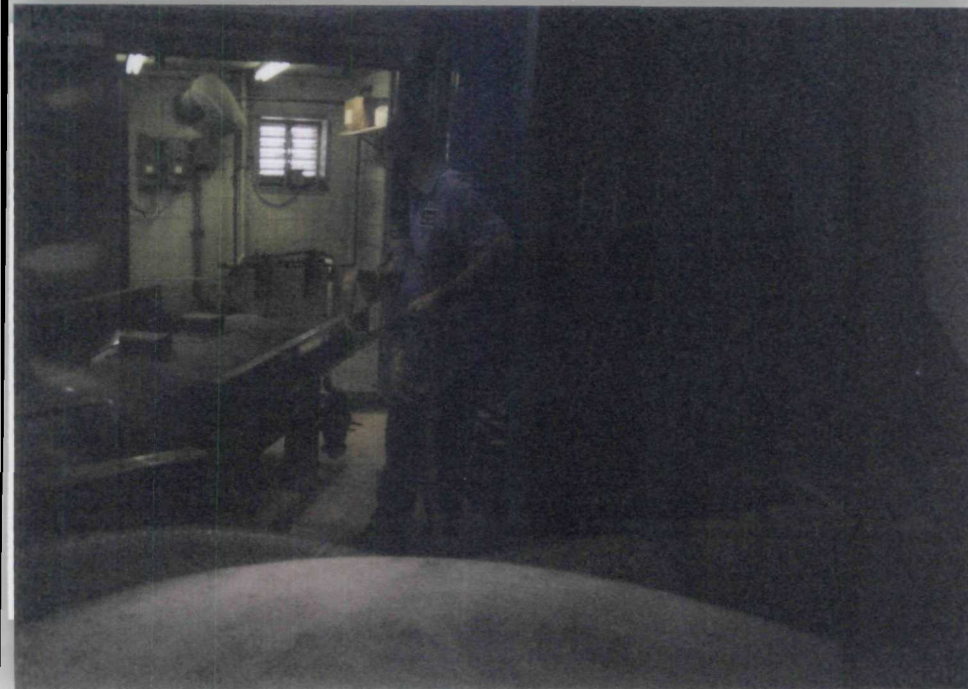


Site: American Chemical Service, Inc.  
 Proj. #: 44728 AES [46526 RAC]  
 Roll: 88 Photo #3  
 Date: 6-19-06 Time: 1035  
 Photographer: Chad Gailey  
 Description: Photo facing southeast inside GWTP  
 showing Lee Orosz preparing to remove old  
 compressor.

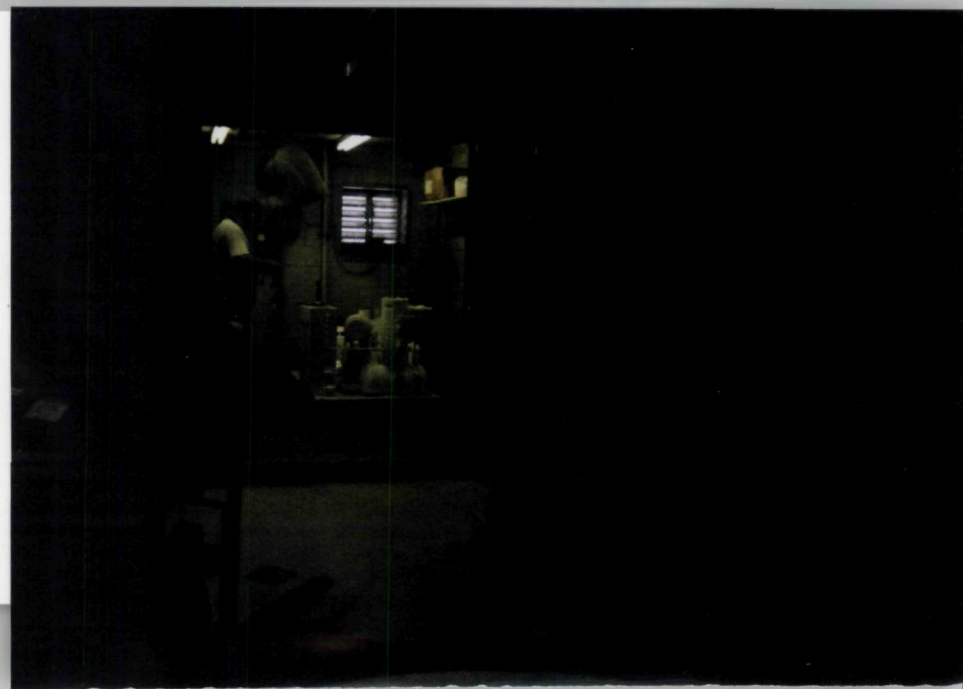


Site: American Chemical Service, Inc.  
 Proj. #: 44728 AES [46526 RAC]  
 Roll: 88 Photo #4  
 Date: 6-19-06 Time: 1112  
 Photographer: Chad Gailey  
 Description: Photo looking east into compressor room  
 as MWH prepares to connect the old compressor tank  
 for removal.





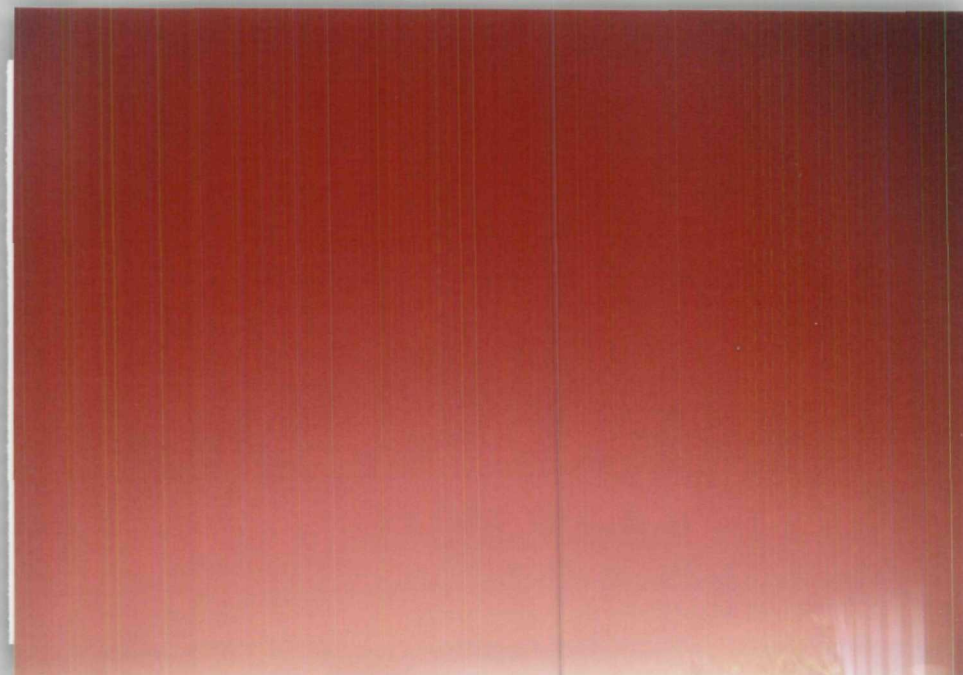
Site: American Chemical Service, Inc.  
Proj. #: 44728 AES [46526 RAC]  
Roll: 88 Photo #5  
Date: 6-19-06 Time: 1130  
Photographer: Chad Gailey  
Description: Photo facing east showing MWH removing the air compressor tank from the compressor room.



Site: American Chemical Service, Inc.  
Proj. #: 44728 AES [46526 RAC]  
Roll: 88 Photo #6  
Date: 6-19-06 Time: 1233  
Photographer: Chad Gailey  
Description: Photo facing east inside compressor room showing newly installed Gardner-Denver Model EDE99M screw pump air compressor.



Site: American Chemical Service, Inc.  
 Proj. #: 44728 AES [46526 RAC]  
 Roll: 88 Photo #7  
 Date: 6-20-06 Time: 0903  
 Photographer: Chad Gailey  
 Description: Photo facing southeast showing NIPSCO  
 removing leaking electrical transformer.



Site: American Chemical Service, Inc.  
 Proj. #: 44728 AES [46526 RAC]  
 Roll: 88 Photo #8  
 Date: 6-20-06 Time: 0925  
 Photographer: Chad Gailey  
 Description: Photo facing east showing NIPSCO  
 replacing bushings in transformer. [NOTE:  
 Photograph was overexposed.]